

REMARKS

In the Office Action the examiner has rejected Claims 29-31 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,541,840 to Gurne et al.

The examiner has further rejected Claims 32 and 33 under 35 U.S.C. §103(a) based upon Gurne in further view of U.S. Patent No. 5,506,772 to Kubozono et al.

Claims 34 and 37 have been rejected under 35 U.S.C. §103 based upon Gurne, further in view of U.S. Patent No. 4,207,611 to Gordon, and U.S. Patent No. 6,263,265 to Fera.

In response to the Office Action Applicant has amended the claims to further clarify the nature of the summary display derived from the diagnostic trouble code signals, i.e. whether the diagnostic trouble code signals represents a passed, failed or inconclusive vehicle function status. The summary display proceeds independent of resources external to the code reader. Other amendments have been entered to specify that the steps of connecting, downloading and generating a visual output signal in the code reader proceed independent of user interaction with a visual interface (Claim 35); any vehicle specific identification by a user (Claim 36); and independent of user selection from code reader controls (Claim 37).

Additional claims have been added to further specify the step of downloading parts/service provider information affecting repairs associated with the problem description data (Claims 40, 41).

The invention flows from a recognition of a basic problem affecting the use of code readers by untrained personnel. Contemporary code readers typically store vehicle status information and require a user to access the stored information by navigating a user visual interface. Plainly put, many automobile owners have no interest in learning to navigate user interfaces. As such, the more sophisticated the code reader or scan tool becomes, the less likely it is that such code readers or scan tools will be suitable for use by the general public.

However, recognizing what may be a general public aversion to navigating complex scan tools does not solve the problem. The solution lies in a determination of whether the vehicle status information received from the vehicle on-board computer correlates with a

passed, failed or inconclusive status. That determination proceeds independent of user input and results in the generation of an associated visual display.

Accordingly, an untrained user can obtain a high level reading on the status of a vehicle from a visual display that is generated without the need for the user to navigate any user interface.

If the display indicates a passed status, the vehicle owner may be satisfied to terminate any further diagnostic activity. If the display indicates a failed or inconclusive status, the user may evaluate the matter further by uploading the trouble codes directly to a personal computer so that the trouble codes may be interpreted by a database, e.g. a remote database accessed by the World Wide Web. Consequently, even where multiple trouble codes are present, the user need not navigate the code reader or scan tool to either recognize the failed or inclusive status, or to access problem description data associated with any received trouble codes.

New claim 40 further specifies that the downloaded information may further include product or service provider information relevant to the location and/or cost of repairs associated with the received trouble codes. The end result to the user is a simple, inexpensive hand tool that accesses and provides a basic interpretation of vehicle status information sufficient to identify the presence of a problem status. Further information respecting problem status, and associated product/service repair information is obtained from remote resources that need not contribute to the cost or complexity of the code reader or scan tool.

None of the references cited in the present Office Action appear to disclose or suggest the construction as set forth in the claims. The principal reference to Gurne appears to require navigation through menus or functions and procedures to implement the functionality of the hand tool see e.g. Figures 5-8; Col. 7, l. 22-29; Col 14, l. 67 to Col. 15, l.14.

The Kubozono reference appears to disclose a multifunction tester which passes data to a personal computer for analysis. The personal computer operates on the data and instructs the tester. E.g. Col. 3, l. 32-51; Col. 4, l. 40-64. The tester appears to draw power from the vehicle and presumably cannot communicate with the personal computer when not simultaneously connected to the vehicle. Nor does the Kobozone reference appear to include

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any disclosure that the tester is operative to summarize vehicle status independent of user interaction with the tester or personal computer.

The Gordon and Fera references appear to be cited for selective illumination of visual indicia representative of a different status of a vehicle. However, neither of the references appears to be directed to interfacing a vehicle on-board computer with a hand held code reader. Nor do the references address the aforementioned shortcomings in relation to the Gurne and Kobozono references. As such, none of the prior art references, taken alone or in combination, are believed to disclose or suggest the claimed invention.

In view of the foregoing the claims are believed to be in the condition for allowance. Should any outstanding matters remain the Examiner is invited to contact Applicant's representative at the telephone number listed below.

Applicant would appreciate the opportunity to interview the Examiner in the event that the Examiner should determine that any obstacles to allowance appear to remain.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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